

10/712,214

3

PD-970520A (BOE 0462 PA)

In the Claims:

1. (Amended) An equalizing apparatus for use in equalizing a received signal, comprising:

an equalizer including a plurality of adjustable tap weights that equalizes the received signal based on values of the adjustable tap weights;

a tap weight update calculation unit coupled to the equalizer and adapted to determine constant and predetermined tap weight updates for use in adjusting the tap weights during operation of the equalizer;

an offset memory that stores one or more constant and predetermined tap weight update offset values; and

a summer coupled to the tap weight update calculation unit and to the offset memory, wherein the summer is adapted to combine each of the tap weight updates with one of the constant and predetermined tap weight update offset values to produce a modified tap weight update and wherein the summer is coupled to the equalizer to provide the modified tap weight updates to the equalizer to adjust the tap weights.

2. (Original) The equalizing apparatus of claim 1, wherein the tap weight update calculation unit implements a zero forcing algorithm to produce the tap weight updates.

3. (Original) The equalizing apparatus of claim 1 further including a demodulator coupled to the equalizer and wherein the tap weight update calculation unit is coupled to the equalizer through the demodulator.

10/712,214

4

PD-970520A (BOE 0462 PA)

4-11. Canceled.

12. (Amended) An equalizing apparatus for use in equalizing a received signal, comprising:

an equalizer including a plurality of adjustable tap weights that equalizes the received signal based on values of the adjustable tap weights;

a demodulator coupled to the equalizer to produce a demodulated signal;

a zero forcing tap weight update calculation unit coupled to the demodulator and adapted to determine tap weight updates from the demodulated signal for use in adjusting the tap weights during operation of the equalizer, wherein the zero forcing tap weight update calculation unit uses a zero forcing algorithm to calculate tap weight updates;

an offset memory that stores one or more constant and predetermined tap weight update offset values; and

a summer coupled to the tap weight update calculation unit and to the offset memory, wherein the summer is adapted to combine each of the tap weight updates with one of the constant and predetermined tap weight update offset values to produce a modified tap weight update and wherein the summer is coupled to the equalizer to provide the modified tap weight updates to the equalizer to adjust the tap weights.

13. Canceled

14. (Amended) A method of controlling the equalization of a received signal, comprising the steps of:

10/712,214

5

PD-970520A (BOE 0462 PA)

equalizing the received signal using an equalizer that includes a plurality of tap weights;

using an output of the equalizer to determine a set of tap weight updates;

storing one or more constant and predetermined tap weight update offset values;

combining the constant and predetermined tap weight update offset values with the tap weight updates to produce a set of modified tap weight updates;

using the set of modified tap weight updates to adjust the plurality of tap weights used in the step of equalizing.

15. (Original) The method of controlling the equalization of a received signal of claim 14, wherein the step of using an output of the equalizer to determine a set of tap weight updates includes the step of using a zero forcing algorithm.

16. (Amended) The method of controlling the equalization of a received signal of claim 15, wherein the step of combining the constant and predetermined tap weight update offset values with the tap weight updates to produce a set of modified tap weight updates includes the step of solving the zero forcing equalizer algorithm using the one or more constant and predetermined tap weight update offset values to produce the modified tap weight updates.

17-20. Canceled